November 2, 2012

Below are the responses to Ben Witt's comments on R317-4 as well as his comments/suggestions to Draft 23.

Highlighted items are those items where changes have been agreed to.

Comments

1) It is proposed that we start looking more closely at soil types and allow a soils evaluation as a stand-alone test. While this is done in other states and there are situations where we know what a soil will do without taking time to run a perc test, a big concern is that the soils evaluation on its own could potentially be used against a property owner. There are numerous soils evaluations and perc tests on record at different health departments with huge discrepancies between the perc test and the soils evaluation. Many existing soils evaluations would be deemed to have "unsuitable soils" in the new rule, but yet have perc tests that pass with flying colors. There should be language in the code to protect property owners from having an existing soils evaluation hinder their project when the perc test passed.

Wording should be looked at regarding the use of soils evaluations done prior to the enactment of a process to allow soil evaluations only for determining feasibility and sizing of onsite systems.

Table 6 Footnote (e) These soils are usually considered unsuitable for absorption systems, but may be suitable, depending upon the percentage and type of fines in coarse grained porous soils, and the percentage of sand and structure in fine grained soils. Percolation testing may be used for further evaluation.

4.1 B. Soil and Site Evaluation.

1. Soil Exploration Pit and Percolation Test.

b. When there is a substantial discrepancy between the percolation rate and the soil classification, it shall be resolved through additional soil exploration pits, percolation tests, or both.

The perc test requirement has been taken out. This is a benefit to a property owner in that they do not have to go through the expense of said test, for the faster soil types.

On questionable soils the perc test will determine feasibility.

2) Although the new rule will always allow a perc test, what will be the determining factor for soil feasibility?

Table Five or Six

If the Health Department or DEQ's evaluation of the soil is different than the certified soils tester, can a perc test resolve this discrepancy?

Each health department may have a different in house policy to address discrepancies of this nature, such as, appeals process which should be enacted. It is not the intent of this rule to dictate local health department policies.

When a soil is called into question we need to have a clear path to determining feasibility because there is clearly a great amount of subjectivity involved with the soils evaluation. A property should not be denied a permit or restricted based off a soils evaluation alone. It should be clear in the rule that when tight clay soils are found, a perc test must be done and the health department must be a second witness to the perc test. These soils pose an extremely high risk for failure and it would be foolish not to witness water moving through them before issuing a permit. Don't create a format where people can "evaluate" these soils without adequate testing and then set the homeowner up for failure in a year. It is extremely frustrating to encounter failures and clean up messes due to lack of appropriate testing. Let's do our due diligence on these properties and get a good and safe system installed right up front.

Again this is a local policy and rule enforcement issue.

3) Let's do everything we can to make more properties buildable and not add more restrictive language. There is language throughout the rule stating that type 1 soils and blow sand are unfeasible. Sand is a great soil for both drainage and treatment and these broad statements are not necessary and could be very misleading. If a gravelly soil drains faster than 1 mpi or there are documented failures because of "blow sand", the new rule should allow alternative systems as a fix and require that all health departments allow alternative systems. The same should be said for type 6 soils; if a property has enough area, clay soils alone should not prohibit building when there are safe and proven ways to address this. Another item in the current rule that should be changed is that slopes greater than 25% are not suitable for septic. There are safe ways to address this and open these properties up.

The EPA guideline, which is the basis for Table Six, spells out specifically that there are soils and sites that are not suitable.

4) It is in everyone's best interest that septic systems are a safe and sustainable method of wastewater treatment. There are some very simple things that we can do to improve the performance and the safety of these systems with little to no cost to the homeowner. We are wasting our time with all of these rules if we don't require simple things like: testing tanks for water tightness; installing corrosion resistant materials; and installing access to critical components. There are many drainfields that have never seen a drop of water because everything leaked out of a poorly built septic tank before it got there. Several systems have failed because a cheap distribution box corroded (a $20 plastic box could have prevented a costly repair). Don't add restrictions on pressurized distribution when studies show this is one of the cheapest ways to greatly enhance the performance of a septic system and help the environment- all with a few hundred dollars worth of parts you can get at Home Depot.

Tanks are required to be tested.

Open to corrosion resistant d-boxes. Possibly no concrete d-boxes??

5) There needs to be a separation of responsibilities. The certification program to evaluate soils and design septic systems needs to be controlled by an agency other than DEQ. If the new rule allows more subjectivity then there must be more responsibility. If questionable actions are being taken by certified individuals or regulators, there needs to be an independent agency where complaints can be reported and investigated. Also, some type of experience, expertise and practical knowledge should be demonstrated before someone is given the authority (regulator or contractor) to evaluate soils. This should limit "discrepancies" and give more credibility to the people out doing the work.

DEQ Administrative issue.

6) The whole variance process/experimental system part of the rule should be looked at more closely. Property owners should be given every opportunity to build on their property if they can do it without negatively impacting public health or the environment. There are very few (if any) variances that have been granted to property owners to date because the process is so complicated and costly and in the end they have no guarantee that the Health Department will agree to the variance. The only way a person can install an experimental system is to have a failing system or prove that they can install a conventional back up system. Doesn't this defeat the purpose? If a person can competently demonstrate that they won't harm public health or the environment why are they limited by these rules? One solution would be an appeals board consisting of several disciplines, including regulators, that would evaluate special situations on a case by case basis to make sure people aren't limited by the rule if there are other sensible options. If a person is told that their property is unbuildable by industry experts in addition to the regulatory authority, it will soften the blow and alleviate the burden on the Local Health Department.

We acknowledge that the rule is a prescriptive one size fits all rule. We are willing to accept new technologies for use in Utah as they go through the approval process.

DRAFT 23

1.4 C. That is a local decision on how to use that rule.
D. LHD need the flexibility based on their resources and abilities.

1.5 2.a. Recommend to LHD to better educate owners, not through rule.
2.d. This is a compliance inspection.
2.e. The state contract requires this now for conventional systems.

2.1. Soil treatment is critical for all systems. There is a pathogen risk for all systems.

2.3. Existing wording meets intent.

2.4 Distinction between trench and bed.

2.5 Existing wording meets intent.

2.9 Deleted enclosed porch. Agree in concept with basement.

2.12 House to tank only

2.18 Existing wording meets intent.

2.21 An arbitrary number that is a given to the designer that doesn't count against them.

2.22 Language changed. See Draft 24.

2.26 Existing wording meets intent. See R317-11 (Homeowner design). There is a direct financial and time benefits to the public for simple conventional system design.

2.28 and 2.35 Work with tank manufacturers to find solution.

2.54 Language changed.

2.61 Existing wording meets intent.

2.64 Defined in R309.

2.81 Accept proposed change.

2.86 C33 is adequate based on design guidance principles (loading rates) in this regulation.

2.93 and 2.94 Area includes beds and trenches.

3.2 Accept change in first sentence. Shall is necessary. We are willing to accept new technologies for use in Utah as they go through the approval process.

3.5 Change accepted.

3.8 What circumstance would not require a replacement area?

Covering will adversely affect the soil biologic characteristics.

3.9 Enforced through the malfunctioning systems section.

3.10 Same as 3.9.

3.11 Administrative question.

A. Timing is based on the circumstance and local administrative process. Malfunctioning systems are reported annually to DEQ.

4.1 B. Depends on site and soil conditions.
Regulatory authority needs ability to address unforeseen circumstances.
a. Flexibility is needed to accommodate LHD resources.
b. Discussed in Comments Section Number 3 above
c. This paragraph follows the EPA Guidance manual.
    i. This follows current practice.
d. Current draft regulation does not incorporate design to remove pathogens.
e. Existing wording meets intent. Existing language in current rule.
2. Ground water and Suitable Soils are two separate characteristics for determining feasibility.

3.a. It is an acceptable range given the uncertainty of the water table.
ii. It is a valid tool to evaluate ground water table.
4. The rule has a variance provision to address this issue.
5. The definition is determined by the Corp of Engineers.
6. Language changed.
C. It is not dedicated, it is available.

4.3 The rules may change over time.

5.1 B. Non-domestic wastewater is defined in 2.63.
C. Administrative question.
D.6. Risers requirements are found in 6.6.F.

6.1 A. Change accepted.

6.3 A. 2005 discussion applied to mounds and packed bed media systems. The rule change was given to packed bed media. EPA recommendation.
C. Enforced through the malfunctioning systems section.

6.5 A. Change accepted.
D. This issue should be addressed by an appropriately designed system. (See R309).
We agree that the stream crossing concept is an issue that needs further discussion.
E. Allows flexibility for designers.

6.6 A.3. We don't want to prescribe all unforeseen circumstances.
C. This only applies to septic tanks.
E. Allows flexibility for designers and private industry solutions.
F.
1. Administrative question.
a. Changes made in 6.6 header.
F.2. See 6.6.G.2.B Depth of septic tanks.
5. /see 6.6.F.4 "expected physical loads"
6. The requirement for a secure lid negates this requirement.
G.
1.b. It can be addressed in the design phase to prevent ground water intrusion into the system.

6.8 B. Design considerations for unusual and unforeseen circumstances.
D. Language changed.

6.9 D.1. This is an industry standard and design practice.
2. Design considerations for unusual and unforeseen circumstances.
3. Added language.

6.11 Design consideration.

6.12 B. The D-box is part of the absorption system.
C. Should be the exception, not the rule.
F. Design consideration.

6.13 A.4. We acknowledge this is a concern and increased the separation distance to water table.
B.2. Weber-Morgan health department has experienced failures from livestock damage.
B.4.b. This is addressed in drip irrigation subsection 6.14.C.3.
B.4.d. See installation section 7.1.C.
B.4.e. Caps are necessary to promote uniform effluent distribution.
It is an improved design consideration that exceeds the requirements of the rule.
B.4.h. The risk exceeds the benefit. Compaction, evapotranspiration, and structural integrity of the pipe.
B.4.i. See comments on 4.h.
C. Timed dosing does not affect organic loading of soils.
D.1. Language changed.
D.1.c. We agree that it is a good idea, but is still a design consideration.
D.2.a. Language changed.
e. See D-box comments.
E.2. Proportional distribution means the same thing.
F.1.c.v(2) Existing wording meets intent. Per manufacturer's recommendations and IAPMO standard.
F.2.e. Existing wording meets intent.
F.2.n. Existing wording meets intent.
F.3.k. Existing wording meets intent.
F.4. There was discussion about removing this, but consensus kept it in.

6.14 A.3. Other technologies address these concerns.
A.4. They belong in this category because this system has shown demonstrated failures when not properly maintained. Same argument as to why LHDs won't get alternative approval. The proposed language allows more use of pressurized systems than existing rule.
B.4. This requirement is similar to any other easement or restriction on a property. Property owners need to be aware of renewable operating permits.

C.1.g. Less soil results in seepage at the toe of the system. W-M.
C.3.i.(1) We are willing to accept new technologies for use in Utah as they go through the approval process.
(2) See feasibility section.
(3) See R309.
iii. Credits are given in reduced design flows, horizontal setbacks, and absorption area requirements.
iv. Manufacturers recommendations are against fill applications.
c. A propriety system design has shown that this works.
d. Provide manufacturer justification to increase this number.

4.See comments in 6.14.A4.
4.c.ii.(1) More research needed for pressure rating and diameters.

7.1 B. Soil moisture content and other related conditions are critical during installation.
C.3. In some instances, protection has been shown to be needed.
C.4. Existing wording meets intent.
C.10. Already addressed in 6.13.
C.12. Existing wording meets intent.
E.2. Issue addressed in D4. Aggregate is not acceptable in this situation.
F.2.c. Existing wording meets intent.
H.1.a. Existing wording meets intent.

8.1 A.1. Administrative issue.

9.1 Existing wording meets intent. We are willing to accept new technologies for use in Utah as they go through the approval process.

10.1 A. See comments on Alternative Systems Programs.

11.3 B. The Onsite Wastewater Consortium recommends that these systems be inspected every six months.

11.5 Design considerations.

12.3 The current language is adequate to meet public health considerations.

12.4 Existing wording meets intent.
G. Comment noted.

Table One The rule uses generally; see footnote e of Table 6.

Perc Rate See EPA Guidance Manual. The research doesn't support 600 MPI at this time. We are willing to accept new technologies for use in Utah as they go

through the approval process.

(c) Existing wording meets intent.
(d) Administrative process of each local health department.
(f) We are willing to accept new technologies for use in Utah as they go through the approval process.

Table Two Building Foundation footnote (h) increased flexibility over the existing code while still addressing public health concerns.
(e) R309 and appropriate design considerations.
(f) These will be site specific considerations.

Table Three

This is not the preferred method. Actual flows are preferred. These flows are in line with national standards.

Table Four

More research is needed. We are willing to accept pipes that exceed these minimum standards.

Table Five

Table 3 does not account for non-residential facilities, that may utilize garbage grinders or sequential wash machines.

Table Six

(e) Existing wording meets intent.
(i) Yes. Existing wording meets intent..

Table Seven

Consortium recommends every six months

Appendix B

1.2 Experience has shown this does not work. Current rule requires this. Existing wording meets intent.

Appendix E

1.1 Recommendation only, washing is not prohibited.